OEternAloy[®]

Grade Specification Sheet

TCHP Grade:

NL-3-2

Powder Type: Thermal Spray (HVOF)

Powder Composition:

Titanium Carbonitride:	7.0 - 8.0	wt%
Tungsten Carbide:	81.0 - 84.0	wt%
Cobalt:	9.5 - 10.5	wt%

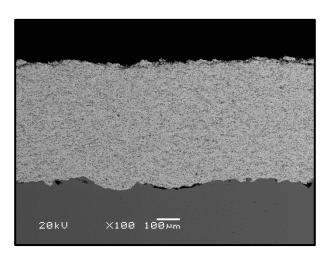
Powder Properties:

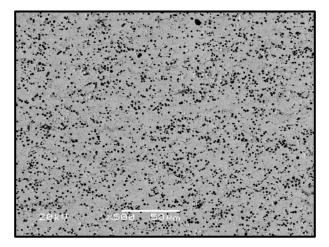
Bulk Density (ASTM B329):	2.75 - 3.25 g/cm ³
Particle Size:	20 – 53 µm

Typical Sintered Properties:

Density (As deposited):	12.4 - 12.5 g/cm3
Microhardness (cross-section)	1100 to 1300 HV ₃₀₀

Grade Attributes: The uniform microstructure of this material is created through encapsulation of fine AI_2O_3 particles into a WC shell, and subsequent Co Shell. Processing this powder into sintered parts or thermally applied coatings based on these chemically inert core particles creates a thermally insulating material which retains exceptional hardness and toughness at elevated working temperatures.







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